

ABSTRACT OF THE DISCLOSURE

A diffraction grating with periodically arranged protrusions and grooves at a relatively narrow pitch
5 and improved diffraction efficiency is disclosed. The protrusions of the grating are made of a material whose index of refraction is greater than that of the grooves, and the ratio of the width D of the protrusion to the pitch Λ of the protrusion is set
10 equal to or less than 0.4 ($D/\Lambda \leq 0.4$).

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